



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,361	08/19/2003	James Charles Bohling	A01410	4833

21898 7590 12/19/2006  
ROHM AND HAAS COMPANY  
PATENT DEPARTMENT  
100 INDEPENDENCE MALL WEST  
PHILADELPHIA, PA 19106-2399

EXAMINER
----------

BADIO, BARBARA P

ART UNIT	PAPER NUMBER
----------	--------------

1617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/643,361	<b>Applicant(s)</b> BOHLING ET AL.	
	<b>Examiner</b> Barbara P. Badio, Ph.D.	<b>Art Unit</b> 1617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____                                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                           |

**Final Office Action on the Merits**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

2. The rejection of claim 2 under 35 USC 103(a) over Webber et al. (US 5,563,220), Sanghvi et al. (US 6,239,220), Stockel et al. (US 4,031,110) and Nagle et al. in combination is made moot by the cancellation of the instant claim.
3. The rejection of claims 1 and 3-5 under 35 USC 103(a) over Webber et al. (US 5,563,220), Sanghvi et al. (US 6,239,220), Stockel et al. (US 4,031,110) and Nagle et al. in combination is maintained.

Applicant argues the cited art lacks motivation to combine. According to applicant, (a) Webber does not teach or suggest adding an amide containing catalyst to the reaction; (b) Stockel and Nagle do not provide disclosures for said addition in the context of the claimed invention; (c) the process taught by Stockel is nonanalogous because the cited reference teaches the production of 3,3-bis(chloromethyl)oxetane; (d) Nagle teaches away from the use of polar solvents as recited by the instant claims and (e) the use of Sanghvi is improper because the reference teaches a process for the recovery of triarylmethyl halide protecting groups that were cleaved during

Art Unit: 1617

oligonucleotide synthesis. Applicant's argument was considered but not persuasive for the following reasons.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The claimed invention is a process for converting a supported trityl alcohol to the corresponding trityl chloride by (a) dispersing an organic solvent and a supported trityl alcohol in a reaction vessel; (b) adding an amide containing catalyst to said vessel; (c) adding a halogenating agent to said vessel and (d) filtering and draining each step and obtaining the corresponding supported trityl chloride.

Each of the cited prior art teaches a process for converting an alcohol group to a halide group in the presence of a halogenating agent and, thus, each is analogous art (see the portion of each cited in the previous Office Action).

The process taught by Webber differs from the claimed process in the absence of the addition of an amide containing catalyst. However, each of Stockel and Nagle teaches the combination of an amide and a halogenating agent in the conversion of an alcohol to the corresponding halogenated compound. In addition, Nagle teaches the addition of an amide containing compound accelerates the reaction through the Vilsmeier-Haack type complex. Thus, the addition of an amide catalyst to the process taught by Webber would be prima facie obvious. Sanghvi, in addition to its teaching of

Art Unit: 1617

a process for the conversion of an alcohol to the corresponding halogenated compound, was utilized for the teaching of equivalence between the different halogenating agents taught by the other cited references.

Applicant also argues Nagle teaches away from the use of polar solvents. It is noted that the reference teaches nonpolar solvents are preferred and not that the reaction would not run in the presence of polar solvents. In addition, Webber and Sanghvi teach the use of polar solvents. Therefore, the use of polar solvents would be obvious to the skilled artisan in the art.

Lastly, applicant argues Stockel teaches N,N-disubstituted formamides as a reagent in the reaction and not as a catalyst. However, the classification of the compound is irrelevant. The relevant issue is the teaching by Stockel of a process of converting an alcohol to the corresponding halogenated compound utilizing a reagent formed by reacting said N,N-disubstituted formamide with a halogenating agent. It should be noted that Nagle teaches a similar process and the fact that said N,N-disubstituted formamide is a catalyst.

For these reasons and those given in the previous Office Action, the rejection of claims 1 and 3-5 under 35 USC 103(a) over Webber et al. (US 5,563,220), Sanghvi et al. (US 6,239,220), Stockel et al. (US 4,031,110) and Nagle et al. in combination is maintained.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


***Telephone Inquiry***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara P. Badio, Ph.D. whose telephone number is 571-272-0609. The examiner can normally be reached on M-F from 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Barbara P. Badio, Ph.D.  
Primary Examiner  
Art Unit 1617

BB

December 14, 2006